

# I/O CONNECTORS RFM SERIES













# OUR RESOURCES

Access everything you need to simplify your projects. More than just a technical guide, our catalog opens the door to a multitude of services and practical tools. All the information below is available on our website or by clicking on the digital PDF.





#### **CAD FILES & PRODUCT SELECTOR**

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PRODUCT FAQ Answers to your most important questions.



OUR CERTIFICATIONS



PRODUCT ASSEMBLY VIDEO



EXPORT CONTROL CLASSIFICATION

# **OUR OFFER**

**38999 SERIES** 

**RUGGED ETHERNET, USB** & DISPLAY CONNECTORS **2M MICRO MINIATURE** 

**ACCESSORIES** 













PT/451 - 26482 SERIES

SL61 & SOCA

**RFM SERIES** 

**PCB CONNECTORS** 













**ETHERNET SWITCH & MEDIA CONVERTER** 

**USB KEYS & EXTENDERS** 



**PS SERIES: Power Devices Solutions** 



**CONTACTS** 

**CORDSETS & JUMPERS** 



**CABLE ASSEMBLY** 



**HARNESS IN THE BOX** 









# **CUSTOMIZED** PRODUCTS AND SOLUTIONS

From cable assembly to customized solutions, we're here to add value to your projects. We look forward to hearing from you.

**CONSULT US** 

# OUR COMPANY

Since 1947, Amphenol Socapex has prescribed, designed and manufactured reliable and innovative interconnection solutions for harsh environments, specializing in standard and customized electrical and fiber optic connectors, contacts, accessories and cabling solutions.

Amphenol Socapex, based in the Mont Blanc region of France and with operations in India and Tunisia, has a global presence in over 100 countries.

# OUR MARKETS



BATTLEFIELD COMMUNICATION



GROUND VEHICLES



MILITARY AIRCRAFT / STRUCTURE



COMMERCIAL AVIATION



**OTHERS** 



# TECHNOLOGIES & INNOVATIONS

# RESEARCH & DEVELOPMENT









- » ENGINEERING LABORATORY: 320m2 state-of-the-art facilities in France and India with advanced testing and analysis equipment.
- » **EXPERTISE:** 30+ specialists handling 300+ product tests and 1,400+ metrology requests annually.
- » TECHNOLOGY: Plating engineering, material development, high voltage analysis, 3D EM simulation, fiber optics, and assembly.
- » METROLOGY: Internal verification of the conformity of measuring instruments and ensuring that our measurement management system complies with the recommendations of ISO 10012.

# OUR WORKSHOPS









Our workshops located in France & India provide consistent quality adapted to your volume requirements.

- » MOLDING: Solid expertise in thermoplastic elastomer and thermoset molding
- » MACHINING: Manufacturing of cylindrical shells and rectangular shells
- » SCREW MACHINING: Manufacturing of electrical contacts
- » PLATING: Plating with cadmium, nickel, electroless nickel, silver, black zinc nickel, gold
- » ASSEMBLY: Connector and harness assembly (electrical & optical)
- » AUTOMATION & TOOLING: Tools for our different activities : molding, machining, assembly

JOIN US! WE'RE HIRING



# TABLE OF CONTENT

Our ressources & our offer	4
Our company & our markets	8
DEM Condard	11
RFM Standard	
General characteristics	12
Arrangements	14
Connector integration	19
How to order	20
Contacts	21
Tools	22
RFM Power	25
General characteristics	26
Monolithic 6 x 60 A	27
200 A Module	29
200 A Module Contacts	30
RFM Quadrax	33
General characteristics	34
Arrangements	35
External dimensions	36
Contacts	37



### **RFM STANDARD**



#### **Table of contents**

RFM Standard	11
General characteristics	12
Arrangements	14
Connector integration	19
How to order	20
Contacts	21
Tools	22

#### THE RFM STANDARD SERVES VARIOUS MARKETS, INCLUDING:



#### Industrial

Railway Racks
Shelters
Cabinets
Power Racks
Modular equipment
Automatic assembly machines

### **GENERAL CHARACTERISTICS - RFM STANDARD**

## Blind mate modular floating rack connector

#### **Benefits**

- Blind mate, floating fixing.
- RoHS Compliant .
- Low insertion forces.
- Male & female contacts can be mounted on both sides.
- Meets NF F 61-032 requirements: vibrations, salt spray, temperature.



NF F 61-032 Qualified product

GENERAL CHARACTERISTICS					
Qualification	NF F 61-032				
Mating cycles	500				
Misalignment allowance around each fixing screw	±1,25 mm				
Contact type	Crimp contacts				
MATERIALS	& FINISHES				
Housing & modules	BLACK POLYCARBONATE				
Frame	Nickel over aluminium				
MAIN ENVIRONMENTA	ALS CARACTERISTICS				
Temperature range	-55°C to +125°C				
Fire behavior	EN 45545-2 HL3 (R22) & I3-F1 NF F16-102				
Salt spray	96 hours (following NFC 20711)				
Chemical behavior	HCI 1N 5min; NaOH 1N 5min				

# 1.Guiding system

Guiding pin & chamfered holes



## 2. Floating system

Around the fixing screw



# **GENERAL CHARACTERISTICS - RFM STANDARD**

# Module 2 contacts Ø3,5



# Module 5 contacts Ø1,5



# Module 3 contacts Ø2,5



# Long Module 5 contacts Ø1,5

(Plug 2XX & Receptacle 3XX)

Avoid to put heat shrink boots around the contact crimping area.

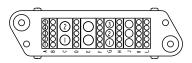


MODULE	5 contacts	3 contacts	2 contacts				
MAIN ELECTRICAL VALUES							
Contact diameter	Ø1.5 mm	Ø3.5 mm					
Current (nom.)	8 A	15 A	60 A				
Insulation resistance under 500 Vrms	>10³ MΩ						
Contact resistance	<2,5 mΩ	<1 mΩ	<0,80 mΩ				
DWV: - Between contacts - Between contacts & ground	1500 Vrms 1600 Vrms	2000 Vrms 2000 Vrms	3000 Vrms 2800 Vrms				
Max. Contact mating forces	2 N	4 N	6 N				

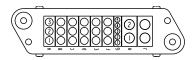
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### **ARRANGEMENTS - RFM STANDARD**

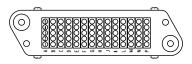
View: receptacle, cable connection side.



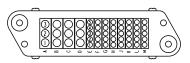
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
ıg	1	201	35	6	4
ceptacle	101	301	35	6	4



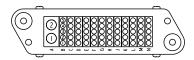
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	6	206	5	18	4
Receptacle	106	306	5	10	4



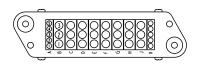
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	2	202	70		
Receptacle	102	302	70	-	-



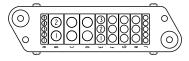
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	7	207	40	12	
Receptacle	107	307	40	12	-



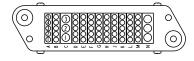
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	3	203	60		2
Receptacle	103	303	60	-	2



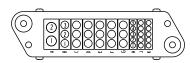
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	8	208	10	24	
Receptacle	108	308	10	24	-



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	4	204	10	10	6
Receptacle	104	304	10	12	6

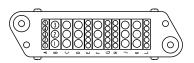


	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	9	209	55	6	
Receptacle	109	309	55	6	-



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	5	205	15	18	2
Receptacle	105	305	15	10	2

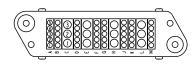
<sup>\* 5</sup> contacts modules (Ø1.5 mm contacts) only are longer



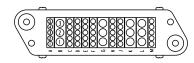
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	10	210	25	40	
Receptacle	110	310	25	18	-

# **ARRANGEMENTS - RFM STANDARD**

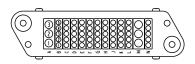
View: receptacle, cable connection side.



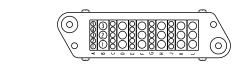
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	11	211	40	12	
Receptacle	111	311	40	12	-



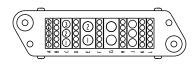
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	16	216	40	12	
Receptacle	116	316	40	12	-



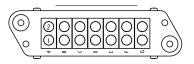
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	12	212	55	6	
Receptacle	112	312	33	0	-



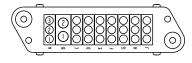
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	
Plug	17	217	25	18		
Receptacle	117	317	25	10	-	



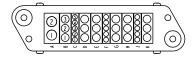
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	13	213	35	6	4
Receptacle	113	313	35	6	4



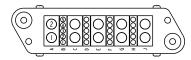
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	18	-			14
Receptacle	118	-	-	-	14



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	14	-		24	2
Receptacle	114	-	-	24	2

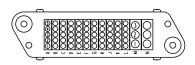


	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	19	219	15	18	2
Receptacle	119	319	15	10	2



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	15	215	20		10
Receptacle	115	315	20	-	10

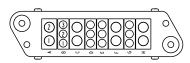
<sup>\* 5</sup> contacts modules (Ø1.5 mm contacts) only are longer



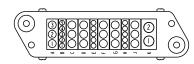
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	20	220	55	6	
Receptacle	120	320	55	0	-

# **ARRANGEMENTS - RFM STANDARD**

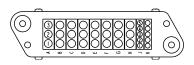
View: receptacle, cable connection side.



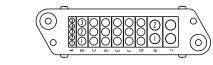
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	21	-		10	
Receptacle	121	-	-	12	8



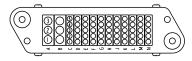
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	26	226	15	10	2
Receptacle	126	326	15	18	2



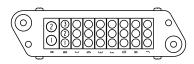
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	22	222	10	24	
Receptacle	122	322	10	24	-



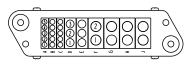
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	27	227	E	18	4
Receptacle	127	327	5	10	4



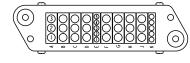
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	23	223	55	6	
Receptacle	123	323	55	0	-



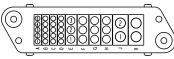
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	28	-		24	2
Receptacle	128	-	-	24	2



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	24	224	15	6	8
Receptacle	124	324	15	6	0

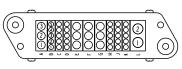


	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	29	229	10	24	
Receptacle	129	329	10	24	-



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	25	225	20	12	4
Receptacle	125	325	20	12	4

<sup>\* 5</sup> contacts modules (Ø1.5 mm contacts) only are longer

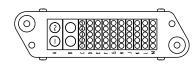


	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	30	230	30	12	2
Receptacle	130	330	30	12	2

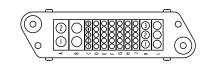
# **ARRANGEMENTS - RFM STANDARD**

View: receptacle, cable connection side.

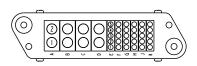
All standardized arrangement from NF F 61-032 are showed. If other arrangements needed, see page 38. Rep31 is not available.



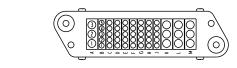
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	32	232	55		4
Receptacle	132	332	55	-	4



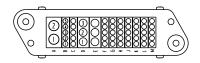
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	37	237	35	6	4
Receptacle	137	337	33	0	4



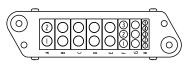
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	33	233	30		8
Receptacle	133	333	30	-	8



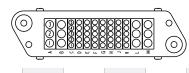
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	38	228	40	12	
Receptacle	138	338	40	12	-



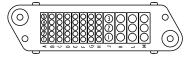
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	34	234	45	6	2
Receptacle	134	334	40	0	2



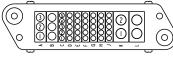
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	39	239	_	6	10
Receptacle	139	339	5	0	10



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	35	235	40	12	
Receptacle	135	335	40	12	-

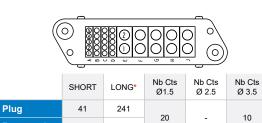


	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	40	240	45	12	
Receptacle	140	340	45	12	-



		, , , , , , , , , , , , , , , , , , , ,			
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	36	236	36	6	4
Receptacle	136	336	30	0	4

<sup>\* 5</sup> contacts modules (Ø1.5 mm contacts) only are longer



341

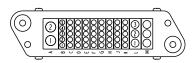
Receptacle

141

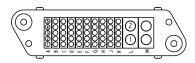
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# **ARRANGEMENTS - RFM STANDARD**

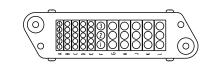
View: receptacle, cable connection side.



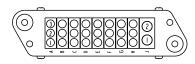
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	42	242	9	6	2
Receptacle	142	342	9	6	2



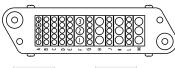
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	47	247	50		4
Receptacle	147	347	50	-	4



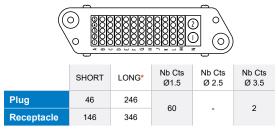
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	43	243	25	18	_
Receptacle	143	343	25	18	-



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	44	-		24	2
Receptacle	144	-	-	24	2



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	45	245	40	12	
Receptacle	145	345	40	12	-



<sup>\* 5</sup> contacts modules (Ø1.5 mm contacts) only are longer

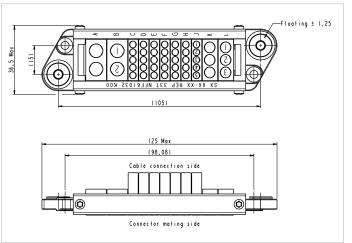
### **CONNECTOR INTEGRATION - RFM STANDARD**

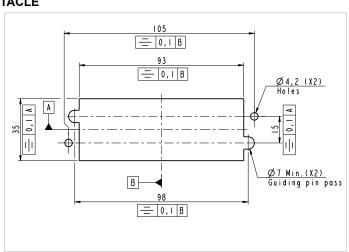
Example arrangement 337 & 237.

#### **External dimension**

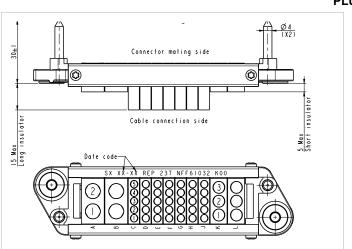
#### RECEPTACLE

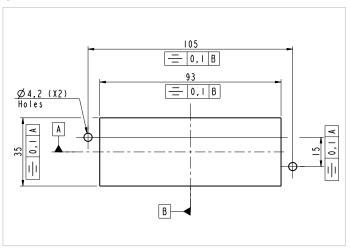
## **Panel cutout**



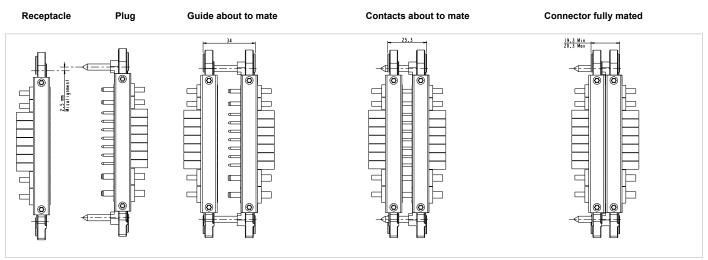


#### **PLUG**





#### **MATING SEQUENCE**



All dimensions are in mm

# **HOW TO ORDER - RFM STANDARD**

#### Nota:

Modules cannot be delivered separately. Connectors delivered without contacts, see page 21.

1. 2. 3. 4.

Series	Connector type	Representation	Layout
RFM	E	REP	302

1. Series name

2. Connector type				
E	Receptacle			
F	Plug			

3. Representation

REP

4. Layout – Choose from column 1 to 4							
PLU	G (F)	RECEPT	ACLE (E)	5CTS	3CTS	2CTS	
SHORT 1	LONG*	SHORT 3	LONG*	module (Ø 1.5 mm)	module (Ø2.5 mm)	module (Ø3.5 mm)	
2	202	102	302	14			
3	203	103	303	12		1	
4	204	104	304	2	4	3	
5	205	105	305	3	6	1	
6	206	106	306	1	6	2	
7	207	107	307	8	4		
8	208	108	308	2	8		
9	209	109	309	11	2		
10	210	110	310	5	6		
11	211	111	311	8	4		
12	212	112	312	11	2		
13	213	113	313	7	2	2	
14	214	114	314		8	1	
15	215	115	315	4		5	
16	216	116	316	8	4		
17	217	117	317	5	6		
18	218	118	318			7	
19	219	119	319	3	6	1	
20	220	120	320	11	2		
21	221	121	321		4	4	
22	222	122	322	2	8		
23	223	123	323	11	2		
24	224	124	324	3	2	4	
25	225	125	325	4	4	2	
26	226	126	326	3	6	1	
27	227	127	327	1	6	2	
28	228	128	328		8	1	
29	229	129	329	2	8		
30	230	130	330	6	4	1	

4. Layout – Choose from column 10 to 4						
4. Layou	t – Choose	from col	umn <b>U</b> to	4		
PLU	G (F)	RECEPTACLE (E)		5CTS	3CTS	2CTS
SHORT 1	LONG*	SHORT 3	LONG*	module (Ø 1.5 mm)	module (Ø2.5 mm)	module (Ø3.5 mm)
32	232	132	332	10		2
33	233	133	333	6		4
34	234	134	334	9	2	1
35	235	135	335	8	4	
36	236	136	336	7	2	2
37	237	137	337	7	2	2
38	238	138	338	8	4	
39	239	139	339	1	2	5
40	240	140	340	8	4	
41	241	141	341	4		5
42	242	142	342	9	2	1
43	243	143	343	5	6	
44	244	144	344		8	1
45	245	145	345	8	4	
46	246	146	346	12		1
47	247	147	347	10		2

<sup>\*5</sup> contacts modules (Ø1.5 mm contacts) only are longer

### **CONTACTS - RFM STANDARD**

#### Nota

All connectors are delivered without contacts. Contacts must be ordered separately.

#### **Pin contacts**



Designation	P/N	Current	Admissible Section	Termination
Pin Contact Ø 1,5 mm	30526	8A	0,34 to 1,5 mm <sup>2</sup> S1 S2 AWG 22-16	
Pin Contact Ø 2,5 mm	30517	15A	1,34 to 2 mm² S4 AWG 16-14	Crimp
Pin Contact	30532	20A	1,91 to 2,5 mm <sup>2</sup> AWG 16-14	
Ø 3,5 mm	30533	60A	4 to 10 mm <sup>2</sup> AWG 10-8	

# On I

### **Socket contacts**

Designation	P/N	Current	Admissible Section	Termination
Pin Contact Ø 1,5 mm*	30521	8A	0,34 to 1,5 mm <sup>2</sup> S1 S2 AWG 22-16	
Pin Contact Ø 2,5 mm	30519	15A	1,34 to 2 mm² S4 AWG 16-14	Crimp
Pin Contact	30529	20A	1,34 to 2 mm² S4 AWG 16-14	
Ø 3,5 mm	30534	60A	4 to 10 mm <sup>2</sup> AWG 10-8	

<sup>\*</sup> Socket Contacts Ø 1,5 mm are equipped with Hyperboloid technology which provide higher performances in harsher environments.

# **TOOLS - RFM STANDARD**

# **Crimping**

	Crimp tool	AWG	Selector position	Turret	Color code		
Contacts Ø1,5 mm	DMC FT8	22	3	DMC SH 463			
30521 30526	ASTRO TOOL 18 5 TGV 101 16 6		_	ASTRO TOOL TGV 202	RED		
Contacts Ø2,5 mm	5 mm DMC FT8	16 14	46		6	DMC SH 463	
30517 30519	ASTRO TOOL TGV 101		7	ASTRO TOOL TGV 202	BLUE		
Contacts Ø3,5 mm 30520	DMC M317	16	2	DMC TP 805	-		
30518 30532	ASTRO TOOL TGV 515	OL 14	2 3	ASTRO TOOL TGV 503	-		
Contacts Ø3,5 mm	DMC M317	10 8			5	DMC TP 805	-
30533 30534	ASTRUTUUL		8	ASTRO TOOL TGV 503	-		



# **Insertion / extraction**

#### <u>Nota</u>

In accordance with the NF F 61 032 standard, extraction tools have to be inserted on the front side of the connector for contact extraction on the rear side of the connector.

		Contact Ø 1.5	Contact Ø 2.5	Contact Ø 3.5
Insertion	Pin & Socket	DAK32*	DAK126-12A*	DAK87-8*
Francosti e u	Pin	DAK602* DAK126-12A*		26-12A*
Extraction	Socket	DAK382*		DAK397*

<sup>\*</sup> DMC tools for sale in distribution.



# **NOTES**

		· · · · · · · · · · · · · · · · · · ·



# RFM POWER



### **Table of contents**

RFM Power	25
General characteristics	26
Monolithic 6 x 60 A	27
200 A Module	29
200 A Module Contacts	30

## THE RFM SERIES SERVES VARIOUS MARKETS, INCLUDING:



#### Industrial

Railway Racks (cars batteries)
Battery Racks
Base stations

### **GENERAL CHARACTERISTICS - RFM**

## Blind mate modular floating rack with high voltage contacts



#### **Benefits**

- Blind mate, floating fixing.
- Low insertion forces.
- High mating / unmating cycles.
- Power contacts Male & Female contacts can be mounted on both sides.
- Socket contacts 200 Amps are equipped with RADSOK® Technology (see features page 30).
- Modular 2 modules of one crimp contact and monolithic 6 cavities for removable crimp contacts .
- Meets NF F61-032 requirements: vibrations, salt spray, temperature.

	6 x 60 A Monolithic	2 x 200 A Module				
MAIN ELEC	MAIN ELECTRICAL VALUES					
Current (nom.)	60 A	200 A				
Insulation resistance under 500 Vrms	>10³ MΩ					
Contact resistance	<2,5 mΩ <0.5 mΩ					
DWV: - Between contacts - Between contacts & ground	1500 Vrms 1600 Vrms	2600 Vrms 2600 Vrms				
Insertion forces per contacts	≤6 N	≤32 N				
Pin contact diameter	3.5 mm 8 mm					
MAIN ENVIRONME	NTALS CARACTERISTICS					
Temperature range	-55°C to +	125°C				
Fire behavior	EN 45545-2 HL3 (R22) & I3-F1 following NF F16-102					
Salt spray	96 hours following NFC 20711					
Chemical behavior	HCl 1N 5min; Na	OH 1N 5min				



# **MONOLITHIC 6 X 60 A - RFM POWER**

# 0000

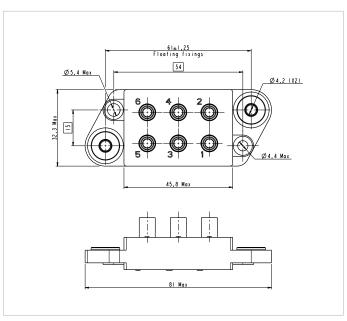
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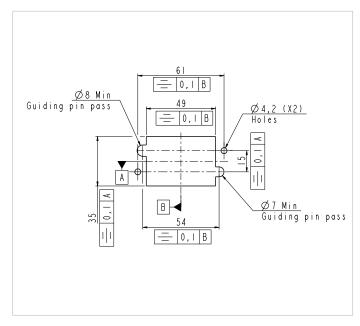
Plug or receptacle can be equipped with pins or sockets, the contacts must be ordered separately.

#### **External dimension**

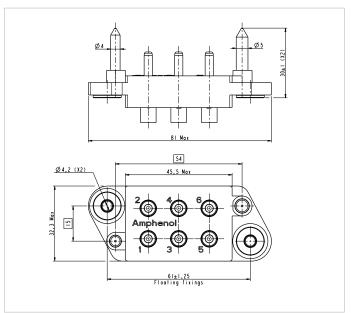
#### **Panel cutout**

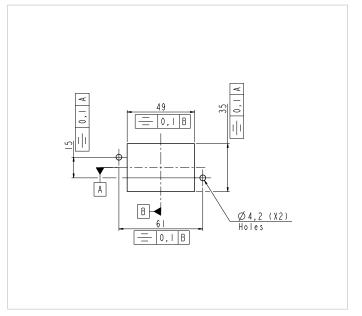
#### **RECEPTACLE P/N 507688**



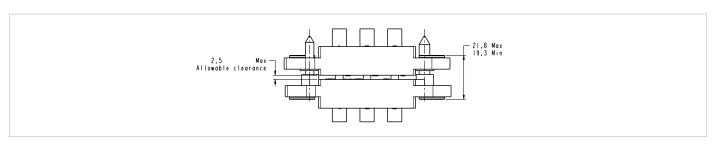


#### PLUG P/N 507687





#### **MATED CONNECTORS**



All dimensions are in mm



# **MONOLITHIC 6 X 60 A - RFM POWER**

#### **Contacts**



Designation	P/N	Current	Admissible Section	Termination
Pin Contact	30501 Pin Contact	604	13 mm² AWG 6	Crimo
Ø 3,5 mm	30533	60A	4 à 10 mm² AWG 10-8	Crimp



Designation	P/N	Current	Admissible Section	Termination
Socket Contact	30502	13 mm² AWG 6		Crima
Ø 3,5 mm	30534	60A	4 à 10 mm² AWG 10-8	Crimp

#### **Tools**

- Crimping:

, ,	Crimp tool	AWG	Selector position	Turret
ContactsØ3,5 mm	DMC M317	DMC M317  ASTRO TOOL TGV 515	6	DMC TP 805
				ASTRO TOOL TGV 503
ContactsØ3,5 mm	DMC M317			DMC TP 805
30533 30534	ASTRO TOOL TGV 515	10 to 8	5 to 8	ASTRO TOOL TGV 503

#### - Insertion / Extraction

		Contact Ø 3.5 mm
Insertion	Pin & Socket	DAK590*
Eutrostian	Pin	DAK126-12A*
Extraction	Socket	DAK397*

<sup>\*</sup> DMC tools for sale in distribution



## 200 A MODULE - RFM POWER

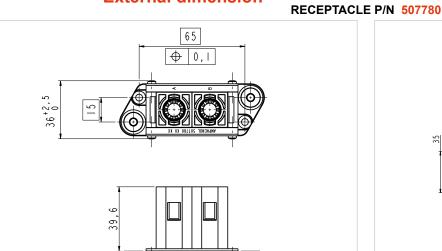
#### Nota:

This 200 A module can be used into standard RFM modular connectors.

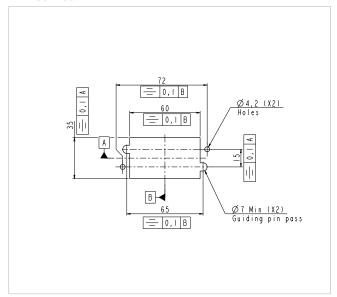
Plug to be equipped with pin & receptacle with sockets. Contacts must be ordered separately.

#### **External dimension**

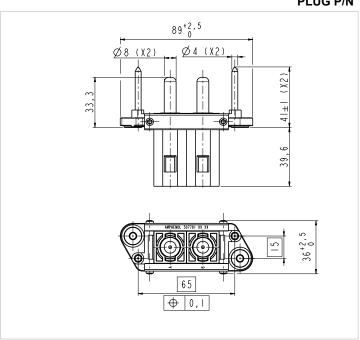
# Panel cutout

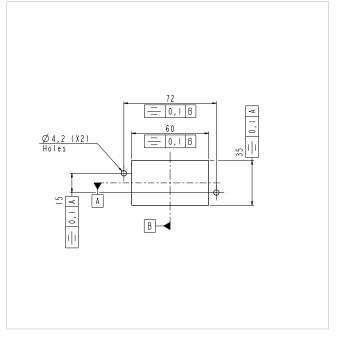


 $89^{+2,5}_{0}$ 

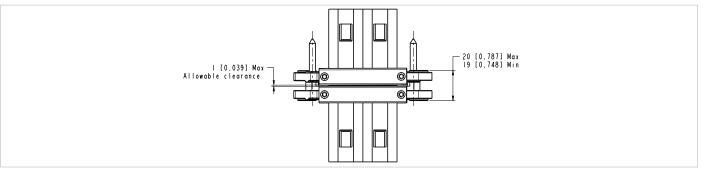


#### PLUG P/N 507781





### **MATED CONNECTORS**



All dimensions are in mm

# 200 A MODULE CONTACTS - RFM POWER

### Contacts RADSOK®

P/N	Designation	Current	Admissible Section	Termination
30279	Pin contact Ø 8mm		50 mm²	Crimp
30280	Socket contact Ø 8mm	200A	AWG 0	Climp



#### **RADSOK®** contacts features:

- Low contact engagement/separation forces.
  - Hyperbolic lamella socket contact.
- Low contact resistance.
  - Large interface area between socket & pin.
- High mating cycle durability.
  - Demonstrated survival of 20,000 mating cycles.



#### **Tools**



- Crimping Hydraulic tool (pins and sockets contacts)

P/N: 809947

- Crimping Dies (pins and sockets contacts)

P/N: 809948



- Removal tool P/N: 809982

# **NOTES**



# **RFM QUADRAX**



### **Table of contents**

RFM Quadrax	33
General characteristics	34
Arrangements	35
External dimensions	36
Contacts	37

#### THE RFM QUADRAX SERVES VARIOUS MARKETS, INCLUDING:



Industrial
Railway Racks
Shelters
Modular equipment
Automatic assembly machines

# **GENERAL CHARACTERISTICS - RFM QUADRAX**

Blind mate modular floating rack connector

with Quadrax contacts for high speed applications.

#### **Benefits**

- Blind mate, floating fixing.
- Male & female signals contacts can be mounted on both sides.
- Low insertion forces.
- Customs available on demand.
- Meets NF F 61-032 requirements: vibrations, salt spray, temperature.



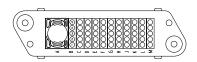
MATERIALS					
Housing and modules BLACK POLYCARBONATE					
Frame	Nickel over aluminium				
MAIN ENVIRONMENTALS CARACTERISTICS					
Temperature range	-55°C to +125°C				
Fire behavior	EN45545-2 HL3 (R22) I3-F1 NF F 16102				
Salt spray	96 hours following NFC 20711				
Chemical behavior	HCI 1N 5min; NaOH 1N 5min				

	Quadrax module					
MAIN ELECTRICAL VALUES						
Pin diameter	Ø1.6 mm (inner contact)					
Current (nom.)	13 A					
Insulation resistance under 500 Vrms	≥ 2000 MΩ					
Contact resistance	≤ 2.5 mΩ					
DWV	AC 1500 Vrms					
Attenuation	<0.4dB@100MHz					
Crosstalk	>43dB@100MHz					

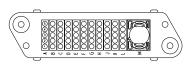


# **ARRANGEMENTS - RFM QUADRAX**

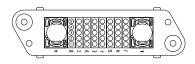
View: receptacle, connection side



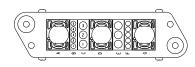
	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508600	55	_		4
Receptacle	508601	35	-	-	'



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508602	55			1
Receptacle	508603	35	-	-	



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508604	40			2
Receptacle	508605	40	-	-	2



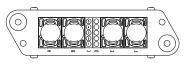
	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508606	10	6		3
Receptacle	508607	10	0	-	3

Signal contacts can be equiped on plug or receptacle. Quadrax contacts:

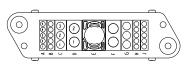
- Male on plug only
- Female on receptacle only

5 contacts modules (Ø1,5 mm contacts) are only available in long version.

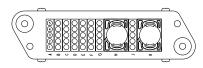
If other configuration needed, please consult us.



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508608	10		_	4
Receptacle	508609	10	-	-	4



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508610	20	6	4	4
Receptacle	508611	20	6	4	ı



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508612	40	_		2
Receptacle	508613	40	-	-	2

# **EXTERNAL DIMENSIONS - RFM QUADRAX**

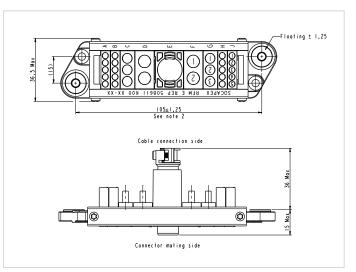
#### Nota:

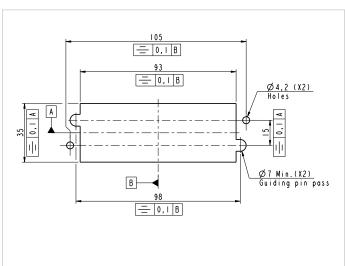
Example arrangement 508611 - 508610

# **External dimension**

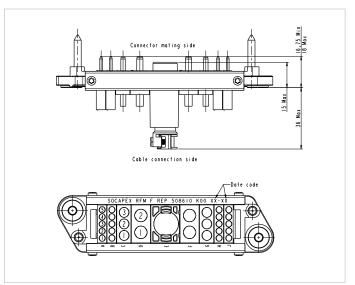
## **Panel cutout**

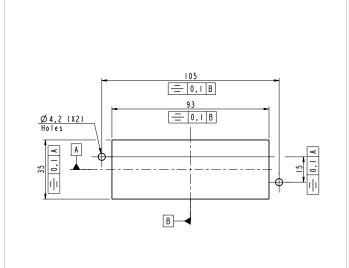
#### **RECEPTACLE**



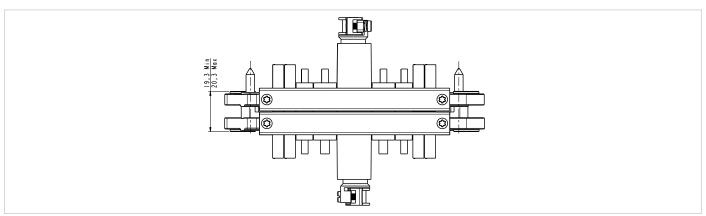


#### **PLUG**





#### **MATED CONNECTORS**



All dimensions are in mm

# **CONTACTS - RFM QUADRAX**



# **Quadrax contact**

Вс	ody		Inner contact	
P/N	Designation	Admissible section 0.13-0.3mm²	Admissible section 0.3-0.6mm²	Admissible section 0.6-1.5mm²
612089	Male body (with inner pin contacts)	612083	612085	612087
612090	Female body (with inner socket contacts)	612084	612086	612088

### Insertion / extraction tools



Extraction tool – Quadrax contact RFM ODE Q



Extraction tool – Inner contacts RFM ODE Q4

# **Crimping tools**



Crimp tool M22520/1-01 (DMC AF8)



Turret DMC UH2-5

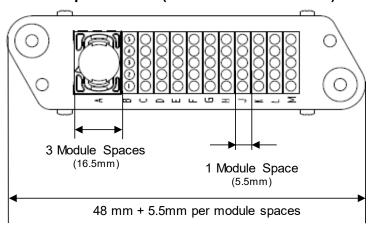
For Quadrax contact crimping method, see datasheet DOC-001022-ANG.

# **BUILD YOUR OWN - RFM CUSTOM POSSIBILITES**

#### Build your RFM following your needs!

Add the appropriate modules you need, using up to the 14 module spaces available.

#### Receptacle view (cable connection side)



	Modules					
	5 contacts	3 contacts	2 contacts	Quadrax	200 A	
Contact diameter	Ø1.5 mm	Ø2.5 mm	Ø3.5 mm	Ø1.6 mm (inner contact)	Ø8 mm	
Current (nom.)	8 A	15 A	60 A	13 A	200 A	
Module space	1	1.5	2	3	4	
Contact mating forces	2 N	4 N	6 N	35 N	32 N	

For others contact types, or styles please consult Amphenol SOCAPEX.

# **NOTES**

# **NOTES**

# ABOUT AMPHENOL

Founded in 1932, **Ampheno**l is one of the largest manufacturers of interconnect products in the world. The company designs, manufactures, and markets electrical, electronic, and fiber optic connectors, interconnect systems, and coaxial and specially cables.

Amphenol has a diversified presence as a leader in high growth areas of the interconnect industry and provides solutions for customers in the automotive, broadband, industrial, information technology and data communications, military ans aerospace, mobile devices, and mobile networks markets.

More info on www.amphenol.com

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